NEW SPECIES OF *GEOMETRIDAE* FROM THE AETHIOPIAN REGION.

BY WILLIAM WARREN, M.A., F.E.S.

SUBFAMILY ORTHOSTIXINAE.

I. Cartaletis concolor spec. nov.

Differs from *C. monteironis* Druce in being paler; a very pale straw-colour, without any reddish tint; the pale blotches of forewing and spots of hindwing in the marginal areas are concolorons with the ground-colour, not bright white.

The underside of abdomen is of the same pale straw-yellow as the wings, instead of dull orange, as in *monteironis*.

Expanse of wings: 52 mm.

1 8, 1 9 from Zulnland, October 1901.

SUBFAMILY GEOMETRINAE.

2. Nemoria dorsicristata spec. nov.

Forewing: dull grey-green, the marginal area somewhat paler; cell-spot rather large, dull blackish; outer line darker grey-green, thick, below the middle edged with shining whitish, from three-fourths of costa to four-fifths of inner margin, oblique outwards to vein 6, there bluntly bent, and obliquely waved inwards; a very obscure dark curved shade at one-third; fringe paler, like the margin.

Hinducing : similar, the postmedian line white-bordered throughout.

Underside uniform whitish green.

Face and thorax green like the wings; vertex deeper green; abdomen paler, the third and fourth dorsal segments marked with partially raised black scales edged with reddish; palpi pale with darker tips; fillet and antennae snow-white; legs and underside of abdomen pale; forelegs in front rosy tinged.

Expanse of wings : 22 mm.

1 3 from Durban, Natal (G. F. Leigh).

3. Syndromodes delicata spec. nov.

Forewing: pale bluish green; the costal edge white; first line curved at one-third; second sinuous from three-fourths of costa to two-thirds of inner margin, but both marked only by white, sometimes obscure, spots on veins; traces of a similar submarginal line; cell-spot small, white; marginal line fine, dark brown, widely interrupted by large white spots at the vein-ends, which are followed by subquadrate grey spots in the pure white fringe.

Hindwing : similar, without first line.

Underside uniform pale green; the costa of forewing whitish.

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Face and palpi olive-brown; vertex and antennae white; thorax green; abdomen faded, probably greenish ochreous, with four white, red-edged dorsal spots. Expanse of wings: 22 mm.

1 \$ from Durban, Natal (G. F. Leigh).

It is possible that this may be the \hat{Y} of S. *vivida* Warr., but the fringes are quite different.

SUBFAMILY STERRHINAE.

4. Synelys pudens spec. nov.

Forewing: glossy, very pale flesh-colour, the lines slightly deeper; the outer line marked by minute dark dots on the veins, projecting at veins 6 and 4; the median shade parallel to it; the inner line curved, very faint; submarginal line fine, waved, between two deeper shades; marginal spots hardly darker between the veins; fringe glossy; cell-spot minute.

Hindwing : without inner line.

Underside glossy whitish; the forewing slightly pinkish to median line and black-speckled; the outer and marginal series of spots and the cell-spots black and distinct.

Face and palpi black above, whitish below; vertex, shoulders, and patagia pearl-grey; collar brown; abdomen like wings.

Expanse of wings : 25 mm.

1 9 from Durban, Natal (G. F. Leigh).

Like S. natalica Butler, but smaller and less strongly marked.

SUBFAMILY PALYADINAE.

5. Melinoessa subalbida spec. nov.

Forewing: dull fulvous, striated with darker fulvous; the lines and ocelloid spot exactly as in *M. croesaria* H.S.

Hindwing : similar.

Underside of the \mathcal{S} : forewing deep fulvous with darker striae; ocelloid spot and median line shown; marginal area beyond outer line dark brownish fuscous: hindwing cream-white, with a brownish band from apex to middle of hindmargin, and a dark cell-spot. The \mathcal{F} has the forewing paler and the hindwing more ochreous.

Expanse of wings : 3, 42 mm.; 9, 44 mm.

4 33, 2 ♀♀ from Entebbe, Uganda, May 1900 (Capt. Rattray).

The pale underside of hindwing will separate the species at once.

SUBFAMILY ABRAXINAE.

6. Lomaspilis casta spec. nov.

Forewing: creamy white; a small basal patch with oblique outer edge of mixed chocolate and lilae scales, a narrow suffusion of the same colours extending along costa to beyond middle; a broad submarginal band, its inner edge sinuous,

its outer nearly straight from apex to anal angle, consisting of two thick lumulatedentate chocolate-brown lines, alternating with two of lilac scales; minute brown marginal dots between the veins : a triangular brown blotch of brown and lilac scales on margin between veins 4 and 6, the apex touching outer edge of fascia, the base expanding fanwise across the cream-coloured fringe; cell-spot black.

Hindwing: similar, but without basal markings; the patch at middle of hindmargin reduced and not extending into the fringe.

Underside with the markings dull brick-red.

Head and thorax brown and lilac, like basal patch; abdomen cream-colour; lower part of face paler; underside of abdomen and legs cream-colour; forelegs reddish in front.

Expanse of wings : 26 mm.

1 9 from Shilouvane, Transvaal, November 1902 (H. Junod).

Allied to L. batesi Wlngrn.

SUBFAMILY BISTONINAE.

7. Apocheima fuliginosa spec. nov.

Forewing: smoky blackish with a faint purplish tinge; costa black, varied with ochreous; lines deep black; first from one-fourth of costa incurved below median towards base of inner margin, the whole basal area deeper black; outer line from three-fourths of costa, sinuous, bent outwards beyond cell and again less strongly on submedian fold, followed by a slight reddish tinge; marginal area deeper black; fringe concelorous; cell-spot black; a very faint median shade is visible shortly before outer line.

Hindwing: similar, but without basal line.

Underside paler, more fuscous, with slight striations; costa of both wings with black striae.

Head, thorax, and abdomen black, the thorax and patagia intensely black; antennal shaft white; the pectinations fuscous.

Expanse of wings : 40 mm.

1 & from Durban, Natal (G. F. Leigh).

This species has been bred. The $\hat{\gamma}$ is apterous, with a short, thick, clubshaped process only; legs thick and black; abdomen peppered black and ochroous.

SUBFAMILY ASCOTINAE.

8. Alcis acutangula spee. nov.

Forewing : greyish ochreous ; the ground-colour showing only in the median space, the basal and marginal areas being suffused with pale olive-brownish and thickly sprinkled with dark scales ; lines black, very fine ; first from costa at about one-third, vertical in the main, to the submedian fold, there blantly bent nearly at a right angle and running straight to one-fifth of inner margin, preceded by a diffuse brown shade ; outer line from two-thirds of costa, acutely angled ontwards on vein 5, then incurved, and below vein 3 lunulate-dentate to just beyond middle of inner margin, the outward tooth on vein 1 strongly marked, followed by a thick brown shade ; submarginal line pale, waved, the lunules filled in with brown, below costa and beyond cell mixed with black, and followed beyond cell by a blackish cloud; marginal festoon finely black, swollen into spots between the veins; a faint brown median shade, visible on costa and inner margin.

Hindwing : similar, without basal line and shade.

Underside grey, speckled with dark; cell-spots and outer line marked; a darker submarginal cloud, becoming dense and black towards costa of forewing

Face black; vertex, shoulders, and patagia whitish grey with dark speekles; abdomen dark grey; forelegs dark fuscous with pale rings.

Expanse of wings: 48 mm.

1 9 from Durban, Natal (G. F. Leigh).

Resembles *Ectropis noctirolans* Butler, from Japan, but the \mathcal{J} , of which I have lately seen an example, has pectinated antennae.

SUBFAMILY SEMIOTHISINAE.

9. Gonodela subcretata spec. nov.

Forcwing: blackish with a purplish tinge; crossed by four somewhat deeper bands, the first three narrow and waved, basal, median, and outer, vertical but a little outcurved in middle; the submarginal band is broader, and projects outwards towards hindmargin between veins 4 and 6; costa dotted with pale; fringe concolorous.

Hindwing : with only three bands.

Underside of forewing in basal half golden yellow above median vein, chalkwhite below it, thickly striated with purplish, and with a thick purplish median band; outer half of wing and fringe deep purple; a small snow-white spot near hindmargin above vein 6; hindwing bluish white, yellow along costa at base; an interrupted purple median line and purple marginal border, which below middle is split up into two bands.

Head, thorax, and abdomen purplish brown; underside of abdomen, pectus, and legs yellow, the last with purplish fleeks.

Expanse of wings : 26 mm.

1 9 from Entebbe, Uganda, July 1900 (Capt. Rattray).

Distinguished by the underside from *G. commixta* Warr., which it resembles above.

SUBFAMILY ENNOMINAE.

10. Eurythecodes fimosa spec. nov.

Forewing: dirty brown, coarsely dusted and striated with darker brown and black; the lines dark brown; first at one-third bent ontwards between subcostal and submedian veins; outer oblique from apex to three-fifths of inner margin, straight to below vein 3, then vertical; shortly before apex it is joined by an oblique streak from costa; it is followed in the lower half of wing by a deeper brown shade, succeeded by a paler submarginal band; cell-spot black; fringe (worn) brown.

Hindwing : with the line postmedian, slightly[curved ; cell-spot black.

Underside similar, the striae blacker, the lines obseurely marked.

Head, thorax, abdomen, and legs brown.

Expanse of wings: 34 mm.

1 º from Moyamba, Sierra Leone, June 1902 (D. Cator).

11. Hyposidra leprosata spee. nov.

Forcuing: pale olive-brown; the costa greyer, dappled with whitish scales; lines purplish brown; first from one-fourth of costa, bent on subcostal, then oblique to one-fifth of inner margin, very obscure; second from beyond middle of costa to middle of inner margin, very sinuous, describing a small outward curve below costa, a large one between 4 and 6, another on submedian fold, and a small one on inner margin, each curve preceded by a patch of hoary grey scales; a strongly zigzag submarginal line from apex to anal angle, its angles also marked by small patches of hoary scales; an oblique broad brownish shade from middle of inner margin close before outer line fading out before middle of wing; fringe and apex of wing purplish.

Hindwing: with all the markings more distinct; the oblique shade antemedian and entire.

Underside dull lilac; both wings with broad olive tawny submarginal fascia and central line, that in the forewing running from middle of costa to two-thirds of inner margin.

Vertex, shoulders, and basal segments of abdomen grey; face brown; thorax, patagia, and abdomen olive-brown, the latter with a row of whitish dorsal spots; legs olive-brown, spotted with grey.

Expanse of wings : 78 mm.

1 9 from Entebbe, Uganda, July 1900 (Capt. Rattray).

12. Mesocoela seriata spec. nov.

Forewing : fawn-colour, speckled with leaden grey; costa cream-colour, with dark spots at the commencement of the lines; first line scarcely visible, but marked by dark vein-spots; outer line straight from three-fifths of inner margin to apex, dull pinkish white, edged inwardly by a dark line marked by black vein-spots and outwardly by a broad olive-grey band; the inner edge is retracted at vein 7 to the third costal blotch; the olive-grey outer edge runs into apex, and is bordered beneath above vein 7 by a whitish dash; from the second costal spot a fine grey line curves outward beyond a linear angulated cell-mark, and coalesces with outer line before inner margin; fringe olive-brown.

Hindwing : with a thick curved median line and a submarginal series of black spots on veins followed by an obscure pale line ; fringe brown.

Underside coarsely speckled, the hindwing and marginal area of forewing more fulvous; all the lines of upperside repeated.

Face brown, vertex darker ; thorax and abdomen like wings.

Expanse of wings : 44 mm.

1 9 from N. Bailundu, Angola, August 1901 (Pemberton).

Metallospora gen. nov.

For. wing: triangular; costa straight, convex before apex, which is slightly prominent but depressed; hindmargin faintly sinuate; anal angle obtuse.

Hindwing: with apex rounded; anal angle prominent; hindmargin slightly curved.

Antennae of \mathcal{J} bipectinate to three-fifths, the pectinations stiff and ciliated; palpi short, npturned, not reaching top of face; tongue and frenulum present; hind-tibiae thickened, with four spurs; abdomen apparently with dorsal tufts.

Neuration : forewing, cell half as long as wing ; discocellular vertical; first median nervule at four-fifths, second close to third ; vein 5 from rather above the middle of discocellular, 6 from upper end of cell; \tilde{r} , 8, 9, stalked from just before end; 10 and 11 coincident; the median vein is curved upwards near base, the membrane below it forming an elongated double fovea-like depression on the underside, the base of cell being also somewhat distorted : hindwing with veins 3 and 7 both before angles of cell, which is quite half as long as wing.

Type : M. catori spec. nov.

The genus is manifestly related to *Hypephyra* Butler, an Eastern genus ; differing in the pectinated antennae and in the distortion of the median vein.

13. Metallospora catori spec. nov.

Forewing: roughly scaled, olive-brown; the lines darker, but obscure; first at one-fourth, second at two-fifths, both slightly curved, the latter followed by the large oblong blackish cell-spot; outer line very indistinct, incurved below middle, and reaching inner margin at two-thirds; submarginal line irregularly waved and clouded; the costa, cell-mark, fringe, and all the lines are edged with bluish silvery scales, and the whole wing appears to be more or less sprinkled with the same, but this may be due to wearing, as the single specimen is not in perfect condition; fringe concolorous.

Hindwing : without first line ; the cell-spot smaller, but deep black.

Underside bright ochraceous; the markings blackish; these are the second line, the cell-spot, and a diffuse submarginal cloud; in the forewing this is broad and irregular, lying between veins 2 and 6; in the hindwing it forms a narrower band from costa to submedian fold: costal and hindmargins with a few dark striae.

Head, thorax, and abdomen above olive-brown ; palpi, pectus, legs, and underside of abdomen ochraceous like underside of wings.

Expanse of wings: 34 mm.

1 & from Moyamba, Sierra Leone, September 1901 (D. Cator).

I have named this species in honour of the collector.

14. Pareclipsis insolita spec. nov.

Forewing: grey-brown, with darker speekling; the lines olive-brown; first from one-fourth of costa to one-fourth of inner margin, acutely angled on the subcostal vein; median line oblique, neally straight, passing over the brown cell-spot; onter line at four-fifths, outwardly curved from costa to submedian fold, then vertical, edged on both sides with pale ochreous; submarginal line deeply dentatelunulate, paler, the lunules filled up with brownish, those beyond the cell with blackish; large black marginal spots between the veins; fringe grey-brown with a pale basal line.

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Hindwing: similar, without basal line; cell-spot brown, beyond the median line. Underside greyish ochroons, densely striated with fuscous; the lines and cellspots thick and fuscous.

Head, thorax, and abdomen concolorous.

Expanse of wings : 30 mm.

1 9 from Moyamba, Sierra Leone (D. Cator).

I refer this to Pareelipsis temporarily.

15. Therapis sordida spec. nov.

Forcewing: dull ochroous, washed with pale olive-fulvons, and densely dusted with black; first line very indistinct, blackish, from one-fourth of costa curved to near base of inner margin; onter line from four-fifths of costa, marked by black dots on veins 6, 7, 8, then running as an oblique black line to one-fourth of inner margin, continued as a basal line across hindwing; a slight linear cell-mark; submarginal line visible only at the extreme apex, where it is followed by a brown apical blotch reaching vein 6; fringe olive-brown.

Hindwing: with traces of dark antemedian and postmedian lines, marked mainly by blackish blotches on inner and costal margins, the latter also by some blackish vein-spots.

Underside paler; both wings with a thick sinuons antemedian line; forewing with brown blotch at apex; hindwing with outer line marked by vein-spots.

Head, thorax, and abdomen concolorous; face and forelegs olive-fuscous.

Expanse of wings : 52 mm.

1 9 from Kassai River, Congo Free State.

Larger than the type species *evonymaria*, otherwise resembling it; the discovery of the \mathcal{S} must be waited for to establish its true position.